

Form 1449 (Modified) P E MAY 13 2002 Information Disclosure Statement By Applicant PATENT & TRADEMARK OFFICE Several Sheets if Necessary)			Atty Docket No. SRI1P044/US-4390-2	Application No.: 10/059,033
			Applicant: Pelrine, et al.	Group 2834
			Filing Date 01/29/02	

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
TMB	A1	5,977,685	11/02/99	Kurita, et al.			06/03/96
TMB	A2	6,060,811	05/09/00	Fox, et al.			07/25/97
TMB	A3	6,184,608	02/06/01	Cabuz, et al.			12/29/98
TMB	A4	6,249,076	06/19/01	Madden, et al.			04/14/99
TMB	A5	4,885,783	12/05/89	Whitehead, et al.			04/10/87
TMB	A6	5,788,468	08/04/98	Dewa, et al.			11/03/94
TMB	A7	6,108,275	08/22/00	Hughes, et al.			12/16/97
TMB	A8	6,333,595B1	12/25/01	Horikawa, et al.			02/16/99
TMB	A9	6,140,131	10/31/00	Sunakawa, et al.			09/24/98
TMB	A10	6,201,398B1	03/13/01	Takada			02/06/97
TMB	A11	5,591,986	01/07/97	Niigaki, et al.			09/02/94
TMB	A12	5,744,908	04/28/98	Kyushima			03/10/97
TMB	A13	6,334,673B1	01/01/02	Kitahara, et al.			06/02/99
TMB	A14	5,883,466	03/16/99	Suyama et al.			06/14/97
TMB	A15	6,097,821	08/01/00	Yokoyama, et al.			11/25/97
TMB	A16	6,055,859	05/02/00	Kozuka et al.			09/26/97
TMB	A17	6,252,221B1	06/26/01	Kaneko, et al.			06/21/99
TMB	A18	6,075,504	06/13/00	Stoller			03/19/93
TMB	A19	6,037,707	03/14/00	Gailus, et al.			03/03/98
TMB	A20	5,914,901	06/22/99	Gershenheld, et al.			06/22/99
TMB	A21	5,912,499	06/15/99	Diem, et al.			12/22/98

Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication		
TMB	B1	Bar-Cohen, Yoseph, JPL, <i>WorldWide ElectroActive Polymers, EAP (Artificial Muscles) Newsletter</i> , Vol. 3, No.1, June 2001.		
Examiner		Date Considered		3/18/03
<i>Thomas M Daugherty</i>				

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form 1449 (Modified) P E JJC MAY 13 2002 Information Disclosure Statement By Applicant <small>(Use Several Sheets if Necessary)</small>		Atty Docket No. SRI1P044/US-4390-2 Applicant: Pelrine, et al. Filing Date 01/29/02	Application No.: 10/059,033 Group 2834
---	--	---	---

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
<i>TMW</i>	C1	Bharti, V., Z.-Y. Cheng, S. Gross, T.-B. Xu, and Q. M. Zhang, "High electrostrictive strain under high mechanical stress in electron-irradiated poly(vinylidene fluoride-trifluoroethylene) copolymer," <i>Appl. Phys. Lett.</i> Vol. 75, 2653-2655 (October 25, 1999).
<i>TMW</i>	C2	Bharti, V., H. S. Xu, G. Shanthi, and Q. M. Zhang, "Polarization and Structural Properties of High Energy Electron Irradiated Poly(vinylidene fluoride-trifluoroethylene) Copolymer Films," to be published in <i>J. Appl. Phys.</i> (2000).
<i>TMW</i>	C3	Calvert, P. and Z. Liu, "Electrically stimulated bilayer hydrogels as muscles," Proceedings of the SPIE International Symposium on Smart Structures and Materials: Electro-Active Polymer Actuators and Devices, March 1-2, 1999, Newport Beach, California, USA, pp. 236-241.
<i>TMW</i>	C4	Kornbluh, R., Pelrine, R., Eckerle, J., Joseph, J., "Electrostrictive Polymer Artificial Muscle Actuators", IEEE International Conference on Robotics and Automation, Leuven, Belgium, 1998
<i>TMW</i>	C5	Kornbluh, R., R. Pelrine, Jose Joseph, Richard Heydt, Qibing Pei, Seiki Chiba, 1999. "High-Field Electrostriction Of Elastomeric Polymer Dielectrics For Actuation", Proceedings of the SPIE International Symposium on Smart Structures and Materials: Electro-Active Polymer Actuators and Devices, March 1-2, 1999, Newport Beach, California, USA. pp. 149-161.
<i>TMW</i>	C6	Kornbluh, R., R. Pelrine, Q. Pei, S. Oh, and J. Joseph, 2000. "Ultrahigh Strain Response of Field-Actuated Elastomeric Polymers," Proceedings of the 7th SPIE Symposium on Smart Structures and Materials-Electroactive Polymers and Devices (EAPAD) Conference, March 6-8, 2000, Newport Beach, California, USA, pp. 51-64.
<i>TMW</i>	C7	Kornbluh, R., Pelrine, R. Joseph, J., Pei, Q. and Chiba, S., "Ultra-High Strain Response of Elastomeric Polymer Dielectrics", Proc. Materials Res. Soc., Fall meeting, Boston, MA, pages 1-12, December 1999
<i>TMW</i>	C8	Liu, Y., T. Zeng, Y.X. Wang, H. Yu, and R. Claus, "Self-Assembled Flexible Electrodes on Electroactive Polymer Actuators," Proceedings of the SPIE International Symposium on Smart Structures and Materials: Electro-Active Polymer Actuators and Devices, March 1-2, 1999, Newport Beach, California, USA., pp. 284-288.
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form 1449 (Modified) Information Disclosure Statement By Applicant <small>Use Several Sheets if Necessary</small>		Atty Docket No. SRI1P044/US-4390-2	Application No.: 10/059,033
		Applicant: Pelrine, et al.	Group 2834
		Filing Date 01/29/02	

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
<i>JMP</i>	D1	Liu, C., Y. Bar-Cohen, and S. Leary, "Electro-statically stricited polymers (ESSP)," Proceedings of the SPIE International Symposium on Smart Structures and Materials: Electro-Active Polymer Actuators and Devices, March 1-2, 1999, Newport Beach, California, USA., pp. 186-190.
<i>JMP</i>	D2	Pelrine <i>et al.</i> , "Electroactive Polymer Electrodes", U.S. Patent Application No. 09/619,843, filed July 20, 2000, 54 pages
<i>JMP</i>	D3	Pelrine, R., R. Kornbluh, and J. Joseph, "Electrostriction of Polymer Dielectrics with Compliant Electrodes as a Means of Actuation," <i>Sensors and Actuators A: Physical</i> , Vol. 64, 1998, pp. 77-85.
<i>JMP</i>	D4	Pelrine, R., R. Kornbluh, J. Joseph, and S. Chiba, "Electrostriction of Polymer Films for Microactuators," <i>Proc. IEEE Tenth Annual International Workshop on Micro Electro Mechanical Systems</i> , Nagoya, Japan, January 26-30, 1997, pp. 238-243.
<i>JMP</i>	D5	Pelrine, R., R. Kornbluh, and J. Joseph, FY 1998 <i>Final Report on Artificial Muscle for Small Robots</i> , ITAD-3482-FR-99-36, SRI International, Menlo Park, California, 1999
<i>JMP</i>	D6	Pelrine, R., R. Kornbluh, and J. Joseph, FY 1999 <i>Final Report on Artificial Muscle for Small Robots</i> , ITAD-10162-FR-00-27, SRI International, Menlo Park, California, 2000
<i>JMP</i>	D7	Pelrine, R., R. Kornbluh, Q. Pei, and J. Joseph, "High Speed Electrically Actuated Elastomers with Over 100% Strain," <i>Science</i> , Vol. 287, No. 5454, pages 1-21, 2000
<i>JMP</i>	D8	Pelrine, R., J. Eckerle, and S. Chiba, "Review of Artificial Muscle Approaches," invited paper, in <i>Proc. Third International Symposium on Micro Machine and Human Science</i> , Nagoya, Japan, October 14-16, 1992
<i>JMP</i>	D9	Shahinpoor, M., "Micro-electro-mechanics of Ionic Polymer Gels as Electrically Controllable Artificial Muscles," <i>J. Intelligent Material Systems and Structures</i> , Vol. 6, pp. 307-314, May 1995
<i>JMP</i>	D10	Zhang, Q., V. Bharti, and X. Zhao, "Giant Electrostriction and Relaxor Ferroelectric Behavior in Electron-irradiated Poly(vinylidene fluoride-trifluoroethylene) Copolymer," <i>Science</i> , Vol. 280, pp. 2101-2104 (26 June 1998).
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty Docket No. SRI1P044/US-4390-2 Applicant: Pelrine, et al. Filing Date 01/29/02	Application No.: 10/059,033 Group 2834
---	---	---

Other Documents

~~Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.~~